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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,172	01/03/2002	Louis L. Hsu	728-221 (YOR9-2001-0603 U	7827
28249	7590	05/05/2005	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			STEIN, STEPHEN J	
			ART UNIT	PAPER NUMBER
			1775	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/038,172

Applicant(s)

HSU ET AL.

Examiner

Stephen J. Stein

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-20 is/are pending in the application.  
4a) Of the above claim(s) 8-18 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6, 19 and 20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 13, 2005 has been entered.

#### ***Claim Rejections - 35 USC § 112***

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 2 recites the limitation "substrates are different from each other and are approximately co-planar with a top surface of the carrier substrate". This limitation makes the claim indefinite because it is unclear how the two substrates can be co-planar with the top surface of the carrier substrate if the base claim (claim 1) claims "that at least a portion of the at least two substrates protrudes above the surface of the carrier-substrate". It is unclear how the substrates can be both planar with the top surface of the carrier substrate and also protrude above the surface of the carrier substrate.

***Claim Rejections - 35 USC § 102***

5. Claims 1, 3-7, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,555,408 (Jacobsen et al).

Jacobsen teaches a donor substrate having a plurality of blocks comprising functional components (substrates) transferred and bonded into recessed regions (patterned pockets) on a donor substrate (carrier substrate) by fluidic self-assembly (col. 5, lines 43-67 and Figures 7A-7C). Jacobsen further teaches that blocks protrude above the surface of the donor substrate (carrier substrate) (See Figure 7C). The reference still further teaches that the blocks may be made of single crystal silicon or other like material (e.g. different materials) and that each element in the array includes one functional component that may be an electrical component, chemical component, or electromechanical structural element) (col. 5, lines 43-55). Jacobsen still further teaches that the donor substrate (carrier substrate) may be made of metal such as steel, aluminum, copper, brass (thermally conductive materials), glass or quartz (col. 6, lines 10-24) (e.g. different material than the blocks). The reference finally discloses that each recess (pocket) has a greater surface area than a surface area of a cross-section of a block (substrate) deposited within that recess (See Figures 7B-7D and Figures 8B-8C).

***Response to Arguments***

6. Applicant has amended independent claim 1 to include the limitation “such that at least a portion of the at least two substrates protrudes above the surface of the carrier-substrate”, and argue that the this amendment distinguishes over the prior art references (US 6,657,289).

Art Unit: 1775


In view of this amendment to the claims, the rejections over this reference have been withdrawn. Upon an updated search of the prior art, new rejections have been made over newly cited art of record. This Examiner actively invites applicants' representative to contact the examiner by telephone at the representative's convenience, so that the examiner may assist applicants in finding allowable subject matter in the claims and bringing the application to issue.

### *Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Stein whose telephone number is **571-272-1544**. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m. If the attempts to reach the examiner are unsuccessful, the examiner's supervisor, Deborah Jones can be reached by dialing 571-272-1535. The official fax number is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 30, 2005

  
Stephen J. Stein  
Primary Examiner  
Art Unit 1775